

REMARKS

Applicants have amended the claims in order to clarify the present invention.

Independent Claim 1, as amended, is to a method of automatically marking an article which is transferred in one direction, including the steps of storing in advance a pattern for coloring an outer surface of the article with a plurality of coloring agents of respective colors different from each other, detecting a transfer speed of the article, supplying the coloring agents, supplying pressurized gas into a coloring agent supply source, and spouting a plurality of the coloring agents of respective specific amount, as a drop, from a plurality of nozzles, with each nozzle having the coloring agent supply source and a valve between the nozzle and the coloring agent supply source, toward the outer surface of the article according to the pattern in response to the detected transfer speed. Independent Claim 3, as amended, is to a device for automatically marking an article which is transferred in one direction, that includes storing means for storing a pattern for coloring an outer surface of the article with a plurality of coloring agents of respective colors different from each other, detecting means for detecting a transfer speed of the article, and a plurality of nozzles. Each nozzle has a coloring agent supply source for supplying the coloring agent to the corresponding nozzle and a valve provided between the nozzle and the coloring agent supply source, for spouting the coloring agents of respective colors different from each other of respective specific amount, as a drop, toward the outer surface of the article. Control means are provided to make a plurality of the nozzles spout the coloring agent, as a drop, toward the outer surface of the article according to the pattern in response to the transfer speed of the article detected by the detecting means, and a pressurized gas supply source is connected to the plurality of the coloring agent supply sources for supplying pressurized

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gas to the plurality of the coloring agent supply sources, such that when the valve is opened, the coloring agents existing in the nozzles are spouted, as a drop, toward the outer surface of the article with the aid of bias of the pressurized gas supplied from the pressurized gas supply source. Such a method and device are not taught or suggested in the prior art.

In the Final Office Action dated January 22, 2009, Claims 1 and 2 were rejected as obvious under 35 U.S.C. 103(a) in view of a combination of Katzschnner (U.S. 4,503,437) and Hayakawa et al. (U.S. 6,481,824), and Claims 3-8 were rejected as obvious when combining those two references with Gemelli (U.S. 3,068,838). Reconsideration and removal of these rejections are respectfully requested in view of the present claim amendments and the following remarks.

In rejecting Claims 1 and 2, the Office Action asserts that Katzschnner teaches a method of automatically marking an article when an article is transferred in one direction, by storing in advance a pattern for coloring an outer surface of the article with a coloring agent of respective colors different from each other, applying color to the article by a print head, and spouting coloring agent of respective specific amounts toward the outer surface of the article according to the pattern using a coating liquid jet for jetting the liquid, and also teaches detection means for measuring the moving speed of the cable and control means for controlling the coating liquid jet based on the speed of the cable. It is asserted that Katzschnner teaches a plurality of nozzles. While the reference does not teach each nozzle having a coloring agent supply source and a valve between the nozzle and supply source, it is alleged that Hayakawa teaches an ink jet printer to deposit different color inks where each nozzle has an ink supply source and a valve between the nozzle and supply source to control the opening and closing the nozzle, and that it would be obvious to replace the nozzles of the

Katzschner device with the nozzles of Hayakawa because Hayakawa teaches a valve between the nozzle and source helps to control opening and closing the nozzles.

With respect to Claims 3-8, Gemelli is cited to show, in addition to the teachings of Katzschner and Hayakawa, an apparatus for marking a cable where the marking step is done by multiple nozzles arranged along a circumferential direction around the cable to apply a plurality of different colored inks to the wire, and that it would have been obvious to combine the teachings of the three references to arrive at the claimed method.

In response to the arguments presented in an amendment filed August 6, 2008, the Office Action refers to Hayakawa to show the features added to the original claims in that amendment.

By the present amendment, the method of independent Claim 1 provides for supplying the coloring agents and supplying pressurized gas into a coloring agent supply source, and spouting the coloring agent of respective specific amount, as a drop, from the nozzles, each nozzle having the coloring agent supply source and a valve between the nozzle and the coloring agent supply source. Also, as now amended, independent Claim 3, specifies a device that has a plurality of nozzles, each having a coloring agent supply source for supplying coloring agent to a corresponding nozzle and a valve between the nozzle and the coloring agent supply source, with spouting of the coloring agents in a respective specific, amount as a drop, toward the outer surface of the article, and a pressurized gas supply source connected to the coloring agent supply source such that when a valve is opened, coloring agents existing in the nozzles are spouted, as a drop, toward the outer surface of the article by pressurized gas supplied from the pressurized gas supply source. Support for such a method and device is clearly found in the specification, namely at page 21, line 18 through page 24, line 1 and

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page 25, lines 1-6. The Katschner and Hayakawa references fail to teach or suggest such a method and device, and the Gemelli reference does not cure the deficiencies of those references.

In view of the present amendments to the claims and the above remarks, Claims 1-9, as amended, are believed to be patentable and early action towards allowance thereof is respectfully requested.

In the event that any fees are due in connection with this paper, please charge our Deposit Account No. 01-2340.

Respectfully submitted,

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